



Project acronym: GROUND-MED

Project title: Advanced ground source heat pump systems for heating and cooling in Mediterranean climate

Start date of project: 1 January 2009

Duration: 60 months

### **Deliverable D9.11: Training course in France**

Version: Final

Due date of deliverable: 31 December 2010

Actual submission date: 9 November 2010

Organisation name of lead contractor for this deliverable:

**Centre Technique des Industries Aérauliques et Thermique**

Project co-funded by the European Commission within FP7 Programme		
Dissemination level		
<b>PU</b>	Public	<b>X</b>
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the Consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

## **POMPES A CHALEUR GEOTHERMIQUES**

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### **Mardi 9 Novembre 2010 - CETIAT, Villeurbanne**

On 9 November 2010 CETIAT prepared and organized the project training course at its premises in Lyon, termed as National Meeting on Geothermal Heat Pumps in Lyon.

The targeted audience comprised architects, heat pump manufacturers, bore-hole drillers, institutional organizations, engineering firms, etc. About 2000 email invitations were sent. More than 60 people, not including CETIAT staff, attended the Seminar. This number was limited because of the room size (security limits reached). More than 20 people were on a waiting list and could not attend. Over 51 satisfaction votes emitted, with an average grade of 8 out of 10.

All presentations were handed to the Consortium and are posted on the Web Site. They are:

- Ground-Med Project Presentation; D. Mendrinou, CRES
- Geothermal heat pump: a state-of-the-art; N. Benabdelmoumene, CETIAT
- Technical and regulatory contexts applicable to BHEs; R. Vernier, BRGM
- Drilling and installation of BHEs ; N. de Varreux, Augsburg
- Heat exchanger technologies; M. Palomares, RYB TERRA
- Geothermal heat pump technologies; E. Auzenet, CIAT
- Upgrading the Bouygues Construction HQs with geothermal heat pumps; X. du Chayla, Geother
- The BRGM heat pump testing installations (Orléans); C. Maragna, BRGM
- Presentation of AFPAC and CNG; D. Bonnet, AFPAC
- Field feedback of heat pump operation; D. Bonnet, AFPAC
- Geothermal and renewable energies development framework in France; P. Laplaige, ADEME

A visit to CETIAT test rigs followed.

## POMPES À CHALEUR GÉOTHERMIQUES



**Mardi 9 Novembre 2010 - CETIAT, Villeurbanne**

### PROGRAMME DE LA JOURNEE

9 h 30	10 h 00	<i>Accueil des participants</i>	
10 h 00	10 h 20	Présentation du Projet Ground-Med	D. Mendrinos, CRES
10 h 20	10 h 40	État de l'art des PAC géothermiques	N. Benabdelmoumene, CETIAT
10 h 40	11 h 00	Contexte technique et réglementaire en France applicable aux sondes géothermiques	R. Vernier, BRGM
11 h 00	11 h 30	Forage et Pose de Sondes Géothermiques	N. de Varreux, Augsburger
11 h 30	12 h 00	<i>Pause</i>	
12 h 00	12 h 20	Échangeurs thermiques	M. Palomares, RYB TERRA
12 h 20	12 h 40	Technologie des PAC géothermiques	E. Auzenet, CIAT
12 h 40	13 h 00	La réhabilitation du siège de Bouygues Construction par PAC géothermique	X. du Chayla, Geother
13 h 00	14 h 00	<i>Lunch (Buffet)</i>	

## POMPES A CHALEUR GEOTHERMIQUES

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**Mardi 9 Novembre 2010 - CETIAT, Villeurbanne**

### PROGRAMME DE LA JOURNEE

(suite)

14 h 00	14 h 20	Plate-forme d'essai de PAC du BRGM (Orléans)	C. Maragna, BRGM
14 h 20	14 h 15	Présentation de l'AFPAC et du CNG	D. Bonnet, AFPAC
14 h 15	14 h 30	Pathologies des PAC	D. Bonnet, AFPAC
14 h 30	14 h 50	Cadre de développement des énergies renouvelables et de la géothermie	P. Laplaige, ADEME
14 h 50	15 h 30	Visite installations CETIAT	Staff CETIAT
15 h 30	16 h 00	<i>Drinks</i>	